First Annual Report to NOAA Office of Global Programs

Project title: "Improving Climate Forecast Communications for Farm Management in Uganda"

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Period covered by this report: August 1, 2000 to March 31, 2001

Grant no. NA06GP0308

Readjustment of original intent to carry out work in Zimbabwe

Activities were delayed beyond the project start date of August 1, 2000 due to increasing political instability and violence in Zimbabwe, associated with tensions surrounding elections and with conflicts over the policies to address highly unequal landholding patterns. Extensive consultations with researchers, officials, academics and NGO staff in Zimbabwe and in organizations active in southern Africa confirmed the impression that it would be logistically difficult to carry out the work, granted the difficulties of travel in the country and the threat of personal danger to project personnel and individuals associated with them. The PIs then discussed a variety of other African countries in which the project might be conducted. Uganda was among the first that were considered, because of 1) the relative strength of the El Niño signal in precipitation, 2) the relative strength of state, NGO and academic institutions, and 3) the availability of literature that permitted a rapid familiarization with the environment, history and social conditions of that country. The experience of one of the PIs (Phillips) with climate issues, programs and institutions in East Africa was an added incentive. Nonetheless, the PIs evaluated a number of other possible countries in South and West Africa before settling on Uganda; none of them had Uganda's combination of positive factors.

Accomplishments to date

Laying the groundwork: The PIs made an initial visit to Uganda in February 2001. A number of meetings took place with researchers in the principal university, Makerere University, and in the National Meteorological Service, including forecasters and application specialists. Faculty and researchers from the Institute of African Languages at Makerere indicated a strong interest in participating in the project's goals of providing linguistically and culturally sensitive forecasts in African languages over the radio. In addition, the PIs had substantive conversations with print and broadcast media professionals and with staff in a number of international and domestic NGOs to develop a fuller sense of previous experiences with radio information programs in Uganda.

Partners: The PIs identified two individuals, an agrometeorologist from the Ugandan Meteorological Service, and a local journalist who has extensive experience with the Regional Climate Outlook Forums, as local research coordinators. Additionally, field assistants were identified with expertise in language and communications. One of the collaborators from the Institute of African Languages at Makerere is interested in developing the field work into a graduate thesis, which would constitute a positive spinoff from this work. A reputable non-governmental organization with extensive programs in Africa is being considered for management of the sub-contract. The sub-contract selection process will be finalized by the end of April.

Initial field work: In consultation with the rest of the team, the PIs selected Luganda as the first language in which to work. In the area where Luganda is spoken, seasonal forecasts can be of use to farmers because relatively accurate seasonal forecasts are available for the timing and amount of precipitation in the second of the two rainy reasons (September-October-November), and farmers grow a number of climate-sensitive annual and perennial crops in rainfed agriculture. The extensive network of print and broadcast journalism in this language will permit pilot programs to be developed more readily than in less widely spoken languages. The spatial proximity of the region in which this language is spoken to the capital city will also facilitate initial visits. Project objectives will also be facilitated by the fact that interviews will build on recent survey work in the region by one of the research coordinators.

Guidelines for individuals and group interviews have been developed which will guide the team in conducting data collection. The two research coordinators are organizing the initial surveys and focus groups. Information collected is expected to be summarized by mid-June, in time to begin the development of the radio programs to be aired during July and August.

Preliminary insights/results

The PIs' discussions with the director and staff of the Institute of African Languages at Makerere University confirmed their sense of the great linguistic diversity of the country. These discussions also helped solidify the perception that in order for new technologies to have a beneficial impact, rural people need to be consulted and involved in the process of decision making about their use. By formulating the project as a dialogue between climate information providers and end users, likelihood of success is increased.

A short visit to several farms, small rural towns and markets in this field area provided at least anecdotal confirmation of the wide access to radio programming and of the interest in receiving seasonal forecasts, not only for variability of precipitation in the rainy seasons but also for dry season temperature which can cause heat stress on seedlings of coffee trees, a major cash crop, in warmer years. It was also noted that there is a wide diversity of "wealth" and access to agricultural advice in the rural areas. Farmers with greater access to agricultural extension services tend to be the better off households, and poorer ones may rely on other sources for information, such as the church. This

knowledge will have implications for exploring additional channels of information flow in rural communities.

Preliminary plans for year two

Year two funding will begin during period the radio broadcasts are being aired in Luganda in August 2001. After the radio series is complete, the team will begin field surveys to assess the comprehension and impact of the radio programs. Building on the outcome and lessons learned from this first trial, we will then design the details of data collection in the second language group.

It seems likely that the second language chosen will be of a different linguistic family or sub-family from the first language. Luganda can be understood to some extent by the speakers of languages such as Lusoga that are part of the same sub-family of Bantu languages as Luganda, and they may well hear, understand and use the Luganda forecasts that we will make available in the first year. Additional criteria for selection of the second region will be forecast quality and farming systems. As outlined in the proposal, experience across at least two climate zones and farming systems will help identify common issues and challenges to the broad applicability of the approach.